

THE ERIE COUNTY CONSTRUCTION & DEMOLITION (C&D) DEBRIS RECYCLING DIRECTORY

Change the
way you
think about
C&D
Debris...

**Reduce,
Reuse &
Recycle!**



"Willy Waste-Little"

2003

**The Erie County Department of Environment & Planning
Division of Environmental Compliance Services**



Joel A. Giambra, County Executive

Laurence K. Rubin, Commissioner
Department of Environment & Planning

Local Recycling Contacts

Northeast Southtowns Solid Waste Mgt. Board	716-649-4953
Northwest Solid Waste Management Board	716-631-7119
City of Buffalo, Recycling Department	716-851-5370
NYSDEC Region 9 Division of Solid and Hazardous Materials	716-851-7220
NYS DED — Environmental Management Investment Group — Albany, NY	518-292-5854
Erie County Dept. of Environment & Planning Division of Environmental Compliance Services Office of Solid Waste	716-858-6370

Directory prepared by:

The Erie County Department of Environment & Planning
Division of Environmental Compliance Services

Funding for Erie County C&D Recycling Program:

U.S. — Environmental Protection Agency

Inclusion in this directory does not constitute an endorsement by the sponsor or its author, nor does it suggest that the companies listed are in compliance with all applicable laws. This directory should not be considered a complete listing of companies providing the listed services. The companies are listed alphabetically, and not by preference. Be sure to contact each facility. Companies may charge a tipping fee for their services, call each company directly to find out. Be sure to consult your local recycling coordinator or the NYSDEC for additional information. While the authors tried to obtain the most accurate information, inclusion in the directory was voluntary and subject to change. Be sure to contact the company directly for information about service offered.

Directory Updates: If you have any inquiries regarding updates or inclusion in this directory, please call the Erie County Department of Environment and Planning at (716)858-6370.

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Introduction

Purpose



The purpose of this directory is to enhance the recycling of construction and demolition (C&D) material in Erie County. The Erie County C&D Debris Recycling Program was created in 1997 with assistance from NY State and The US-EPA to help increase the amount of C&D debris being recycled in Erie County. Recycling this material can save money by reducing disposal costs to contractors, public institutions and local governments by saving on expensive tipping fee charges at landfills. It also helps our local economy by stimulating job growth in the end-use markets.

According to the 1998 New York State Recycling Bulletin, a total of 29.65 million tons of solid waste was generated in New

York State. National averages show that 20-30% of all waste generated is C&D debris. Thus, assuming approximately 7.4 million tons of waste material is from C&D, only 1.2 million tons were reported in the Recycling Bulletin as having been recycled (less than 16% of total C&D material). **As a result of this project, over 450,000 tons of C&D have been recycled locally**, far exceeding the national average! Some projects participating in the program have included:

Project Name

Administered By:

Erie County Youth Detention Facility Project — Ciminelli Construction Mngmt.
Roswell Park Cancer Institute — Ontario Specialty Contracting
University at Buffalo Student Housing Project (3 sites) - ADF Construction Corp.
Buffalo Airport Center Demolition Project — Town of Cheektowaga, NFTA
East Aurora Tops Demolition — Cambria Construction Corp.

This is the second printing of this directory. In this issue, Erie County DEP has included updated recycling alternatives for standard C&D debris like wood, metals and OCC. Two new categories have also been included: mercury containing devices (thermostats, etc.) and salvage/reuse organizations!

KEEP RECYCLING ERIE COUNTY!



Contact the Erie County Department of
Environment & Planning at 858-6370 for
assistance with waste plans,
questions, or comments!

WASTE FACTS

- ♦ From 1990 to 1999, there was 41.5 million tons of C&D debris generated in NY. Of that, 6.7 million tons were reported as being recycled. That's only a 16% - 17% recovery rate.
- ♦ The EPA states the most common management practice for C&D debris is landfilling, including C&D landfills, MSW landfills, and un-permitted sites. An estimated 35% to 45% is discarded in C&D landfills. 30% to 40% of C&D debris is managed on-site, at MSW landfills, or at un-permitted landfills.
- ♦ An estimated 20% - 30% of building-related C&D debris is recovered for processing and recycling. The materials most frequently recovered and recycled are concrete, asphalt, metals, and wood.
- ♦ There is an trend toward increasing recovery of C&D debris in the United States. The publication, **C&D Recycling** estimates there are about 3,500 operating facilities that process C&D debris materials in the United States.
- ♦ 43% of C&D waste (58 million tons per year) is generated from residential sources and 57% (78 million tons per year) is from nonresidential sources.

What Does That Mean?

GLOSSARY OF TERMS

Construction & Demolition

(C & D) Debris - the uncontaminated solid waste resulting from the construction, remodeling, repair and demolition of utilities, structures, and roads. Also uncontaminated solid waste resulting from land clearing.

C&D Debris Processing

Facility - a processing facility that receives and processes construction and demolition debris by any means.

OCC - old corrugated cardboard.

Recyclable - solid waste that exhibits potential to be used repeatedly.

Recyclable Handling & Recovery

Facility - a solid waste processing facility at which nonputrescible recyclables are separated from the solid waste stream or at which previously separated nonputrescible recyclables are processed.

Salvaging - the incidental removal of solid waste for reuse under the control of the facility owner or operator.

Salvage Area - a controlled, segregated area at a solid waste management facility where the facility owner or operator authorizes salvaging.

Waste Stream - the total flow of waste materials from a particular community or segment of a community, as it moves from origin to disposal.

Why C&D Debris Recycling?

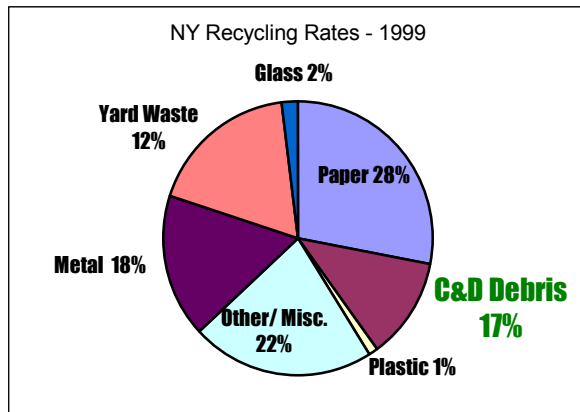
Cost - Even though your disposal costs represent only about 0.5% of a home's total construction costs, consider that waste management costs would represent as much as 5% of your profit on a home. Waste reduction can reduce your material purchases. Recycling can reduce your total disposal costs saving you money and increasing profits!

Efficiency - You pay twice for materials wasted on your jobsites - once for the original purchase and again when the usable material is hauled off for disposal. It is not difficult to find useful building materials "hidden" within the six-foot-high sides of site dumpsters.

Resource Conservation - Roughly 80% of a builder's waste stream is recyclable. Home builders can do their part to conserve natural resources and landfill space by looking at their waste stream and seeing resources instead of refuse.

Liability - The general contractor bears some responsibility for any waste generated at job sites. It is important that you protect your company from potential liability resulting from unauthorized or illegal disposal of waste.

Marketing - Builders who make the effort to create resource efficient projects should take credit for their work. Distinction in the marketplace can lead to positive press and home sales.



Source: www.dec.state.ny.us/website/dshmr/redrecy/bulletin.htm

Where does it all go?

So what becomes of recycled waste material?

Here are a few examples:

PLASTIC:

more plastic, clothing, pvc piping, almost anything!

PAPER:

Recycled paper, newsprint, any fiber based material.

WOOD:

wood fuel, mulch, fiber based material.

CONCRETE:

roadbase, fill material, aggregate, lime for neutralizing, riprap for harbors

GLASS:

reuse windows/ mirrors, inert granular material, "glasphalt" for roads.

DRYWALL:

new drywall, animal bedding.

RUBBLE:

aggregate for fill or roadbase, drainage beds, landfill cover.

REMEMBER:

End use markets are what drive recycling programs!



Developing a Waste Plan

Tips for Recycling

Look for a member of your staff or crew who may have an interest in recycling. Most recycling plans succeed if someone in the company takes responsibility for the program.

Work with the Erie County Department of Environment and Planning to help resolve problems and identify options.

You may feel that savings from lower recycling tipping fees will not cover the extra time required for separation. Keep in mind that extra time spent on recycling normally decreases as your crews and subcontractors get used to a new system of handling waste.

Minimizing contamination is the key to successful recycling. Be sure your idea of a "clean" load is the same as your recyclers'.

Source: Reduce, Reuse, Recycle- A Builder's Field Guide, 1997

Once it has been determined that recycling is cost effective, the project team needs to determine how it will be included through a waste management plan. The following issues need to be addressed:

- What material will be recycled on the project?
- Who will be responsible for implementing and monitoring waste disposal and recycling?
- How will recycling and disposal costs be included in contract documents?

The waste management plan must be communicated to everyone working on the job site. This is particularly critical during the initial phases of the project. Most recyclers demand clean waste, and it takes only one person to contaminate a load of recyclable materials.

After identifying recyclable materials, determine when they will be generated during the C&D process. Consider the timing of drywall versus lumber waste being generated and prepare a recycling plan for each period, whether early in the demolition stages or late in the construction phase.



Target materials should be:

- c generated in significant amounts,
- c valuable, and
- c easy to recover.

Brick/Concrete/ Asphalt/Rubble

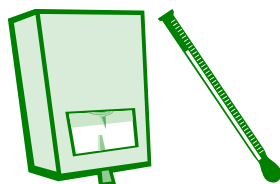
"WILLY WASTE-LITTLE BRICK/ASPHALT FACTS"

The EPA states that there are more than 1,000 asphalt/concrete crushing facilities in the U. S. Estimates show that potentially 50 million tons per year of milled pavement in the United States is reused. Twenty to 50% goes back into pavement as Reclaimed Asphalt Pavement (RAP), with the remainder finding its way into aggregate base or sub-base. Recycling rates are much greater where "tipping fees" are high.



Company Name	Address	Phone	Material Accepted	Type of Service	Other Information
Max Brock	18 Metcalfe St., Buffalo	852-6662	Asphalt, concrete, brick	Drop-off/ collection	Also recycles cardboard, plastic & white goods.
Broad Spectrum Concrete Specialists	115 South Ave., W. Seneca	675-5800	Asphalt, concrete, brick, (must not contain any wire)	Drop-off only	Only accepts material from West Seneca residents.
CID Refuse Service	10860 Olean Rd., Chaffee	496-5000	Asphalt, concrete	Drop-off/ collection	Also recycles roofing material, wood.
CTS Crushing and Recycling	571 Elk St., Buffalo	825-4444	Asphalt, concrete	Drop-off	No charge if product is clean (no wood or metal).
Metzger Removal	235 River Rd., N. Tona.	692-1810	Asphalt, concrete	N/A	Also located at 6411 Walmore Rd. in Wheatfield.
Premium Aggregates	79 Sheldon Ave., Depew	681-7334	Asphalt, concrete, brick, concrete block	Drop-off	Mobil crushing available for commercial jobs.
Swift River Associates	4051 River Rd., Tona.	875-0902	Asphalt, concrete, brick, concrete block	Drop-off	No charge if pieces are smaller than 4' x 4'.
Zoladz Construction	13600 Railroad St., Alden	937-6675	Brick & concrete	Call for info.	call for info.

MERCURY



"WILLY WASTE-LITTLE MERCURY FACTS"

Mercury is probably best known as the silver liquid in thermometers and old thermostats. Mercury is widely distributed in the environment as a result of both natural and man-made activities. The toxicity of mercury has been known for centuries. New evidence demonstrates that even low levels of mercury exposure is hazardous. In the human body, mercury accumulates in the liver, kidney, brain, and blood, possibly causing acute or chronic health effects.



Company Name	Address	Phone	Material Accepted	Type of Service	Other Information
Erie County DEP	HHW Drop-off Events	858-6370	Mercury containing Devices i.e. — thermostats, thermometers	Drop-off	Call for HHW drop-off dates.

METALS



Company Name	Address	Phone	Material Accepted	Type of Service	Other Information
Advance Division/ Co-Steel Recycling Center	776 Ohio St.	716-847-6200	Scrap metal	Drop-off	Call before bringing appliances. www.costeeladvance.com
Max Brock	18 Metcalfe St.	716-852-6662	Scrap metal	Drop-Off/collection	Also recycles OCC & plastic. All white goods drop-off only with certificate of CFC removal. Will accept anything other than wood. Call ahead.

METALS (CONT.)



"WILLY WASTE-LITTLE METAL FACTS"

- American consumers and industry throw away enough aluminum to rebuild the entire U.S. commercial air fleet **every three months**.
- EVERYDAY**, we throw away enough steel and tin cans to make a pipe running from New York City to Los Angeles...and back.
- Approximately 26% of all aluminum and steel/tin cans are recycled annually.



Company Name	Address	Phone	Material Accepted	Type of Service	Other Information
Ben Singer & Sons	1732 Elmwood Ave.	873-5849	Scrap metal	Drop-off/collection	No appliances w/out certificate of CFC removal. Call for fee's.
Ben's Recycling Center	540 East Delevan Ave.	893-2122	Scrap metal	Drop-off/collection	No appliances w/out certificate of CFC removal.
BFI	P.O. Box 571, Kenmore	614-3333	Aluminum and tin cans (food and beverage only)	By local municipal contract only	No commercial or industrial grade products.
CO-Steel Recycling	5445 River Rd.	875-8215	All scrap metal - ferrous and non-ferrous	Call for info.	Call for info.
Ed Arnold Scrap Processors Inc.	2216 Angling Rd.	414-9080	All scrap metal - ferrous and non-ferrous	Drop-off and container service available	Appliances must have agents removed.
Empire Liberty Recycling Inc.	55 Skillen St.	875-2629	All scrap metal - ferrous and non-ferrous	Drop-off, collection for commercial only	Container service. No appliances w/out CFC certificate.
Frontier Fibers	22 Mechanic	692-3519	Non-ferrous scrap metal	Drop-off	Also recycles OCC & paper. No white goods (appliances).
Gateway Recycling	3035 Union Rd.	686-0419	Scrap metal	Drop-off	No appliances w/out CFC certificate.
Gibraltar Metal	250 Lake Ave.	822-2010	All scrap metal	Call for info.	Call for info.
Hurwitz Company	267 Marilla St.	823-2863	All scrap metal	Collection	Container service, all white goods drop-off only with CFC certificate.
INS Scrap Processors	4111 River Rd.	875-7988	Non-ferrous scrap metal	Drop-off	Call for service. No white goods. No refrigerators.
Lake Erie-Levin	127 Fillmore Ave.	823-3788	Scrap metal	Drop-off	Container service. All white goods drop-off only with CFC cert.
Manitoba Corp.	122 Central Ave.	685-7000	Non-ferrous scrap metal	Drop-off	Must be at least 500 lbs.
R&R Salvage	1329 William St.	853-1735	Scrap metal	Drop-off/collection	Salvage/reuse operation. All white goods drop-off only with certificate of CFC removal. No closed containers or vary large pieces of scrap. Also provides bailing and shearing services.
Steel City	2504 South Park	823-4930	Scrap metal	Drop-off/container service available	No appliances accepted.
Twin Village	4153 Broadway	683-5373	Scrap metal	Drop-off/ container service available	Container service. Call for other services. No appliances w/out CFC cert.
United Alloys	41 Hannah	856-6969	Scrap metal	Call for more info.	Call for more info.



MIXED MATERIAL

& CO-MINGLED C&D DEBRIS

"WILLY WASTE-LITTLE C&D DEBRIS FACTS"

Waste is generated every time something is constructed, remodeled, or demolished. Known as construction and demolition (C&D) debris, this waste often contains bulky, heavy materials, including concrete, wood, asphalt, gypsum (the main component of drywall), metals, bricks, and plastics. C&D debris also includes salvaged building components such as doors, windows, and plumbing fixtures. C&D projects create environmental and economic problems in addition to waste. These include depletion of natural resources, air & water pollution from improper disposal, and, for many state & local governments, pressure on landfill space and taxpayer dollars.



Company Name	Address	Phone	Material Accepted	Type of Service	Other Information
AA Cheap Clean Up	143 Glenhurst Rd.	838-3099	Asphalt, concrete, wood, roofing, mixed, OCC	Drop-off/ collection, dumpster, dump trailer, dump truck	Accepts all forms of waste other than asbestos. Call for fees.
CID Refuse Service	10860 Olean Rd., Chaffee	496-5000	Co-mingled material (mixed), wood	Drop-off/collection	Also recycles roofing material, asphalt, concrete, & mixed material.
Clinton Disposal Services	1346 South Park Ave., Buffalo	826-4544	Co-mingled material, asphalt, concrete, wood, metals, roofing.	Drop-off/collection	C&D waste transfer station. Call for fees.
Huron Recovery	300 Greene St.	894-0209	mixed	call for more info.	Call for more info.
Max Brock Co.	18 Metcalfe St.	852-6662	Various 	Drop-off/collection	Also recycles OCC, plastic & white goods. Will accept anything other than wood. Call for info./fees.
Modern Disposal/ Recycling	4746 Model City Rd., Model City, NY (Lewiston)	800-662-0012	Co-mingled material, , concrete and asphalt, OCC, metals, wood, roofing	Drop-off/collection	Wide range of materials accepted. Call for fees.
Natural Environmental	718 Elk St., Buffalo	827-1232	Co-mingled material, C&D waste	Collection (roll off containers, dumpsters, cans)	Also accepts MSW. Call for fees.
Clean Harbors (formally Safety-Kleen)	41 North Gate Ave., Lackawanna	826-8931	Absorbent/wipes, aerosols, batteries, catalysts, dry cleaning filters, empty waste drums, fluorescent lamps, gas filters, mercury, metals, metal working fluids, oil filters, oily water, over-pack drum disposal, paint booth filters, paint spray gun & equipment cleaners, parts cleaners, used motor & PCB oils, waste coolant & antifreeze	Drop-off/ collection 	Recent change of ownership. Call ahead for more info.
TG Enterprises	1526 Eden-Evens Center Rd., Angola	549-3300	Clean mixed wood, lawn and leaf trimmings, tires	Drop-off/ collection	Call for more info.

OLD CORRUGATED CARDBOARD (OCC)

"WILLY WASTE-LITTLE OCC FACTS"

- 75 million tons of recycled fiber is added to 160 million tons of pulp each year to produce 225 million tons of new cardboard.
- The largest single source of waste paper collected for recycling is corrugated/cardboard boxes.
- Americans throw away enough wood and paper every year to heat five million homes for 200 years.



Company Name	Address	Phone	Material Accepted	Type of Service	Other Information
BFI	P.O. Box 571, Kenmore	614-3368	OCC and paper	By contract only	Call for info.
Frontier Fibers	22 Mechanic N., Tona.	692-3519	OCC	Drop-off/collection	Also recycles non-ferrous metals.
Great Lakes Paper Fibers	441 Ohio St., Buffalo	854-3232	OCC and paper	Drop-off	No fees. Call for information.
Max Brock Co.	18 Metcalfe St., Buffalo	852-6662	OCC and paper	Drop-off/collection	Also recycles scrap metals and plastic.
Metro Waste Paper	3241 Walden Ave., Depew	681-1560	OCC	Drop-off	Collection only with service accounts.
Phoenix Recycling	5661 Transit Rd., Depew	685-1514	OCC	Drop-off/collection	Call for more info.
World Recycling	S-6197 Versailles Rd., Lakeview	446-9036	OCC	Collection	No paper.

SALVAGE & REUSE



The Buffalo Architectural Salvage Committee (BASC) of the Allentown Association, Inc.

- Through a cooperative effort between the City of Buffalo and Erie County, the BASC was formed. The BASC is a new, not-for-profit historic preservation group committed to preserving architecturally significant items from homes being demolished throughout Buffalo and WNY. In many cases, these items would end up in our landfills. Salvaged/donated items are offered for sale to the public at reduced rates, with money earned donated to preservation initiatives throughout WNY. Donations always accepted and volunteers needed. All materials donated are tax deductible. Call 574-6401 for details.

Company Name	Address	Phone	Materials	Type of Service	Other Information
Buffalo Architectural Salvage Committee	Buffalo	574-6401	Call - ask for Tim.	Drop-off/collection	Architecturally significant items for donation. Not-for-profit historic preservation group. Tax deductible donations accepted. Volunteers needed.
Antique Architectural Circus	Buffalo	885-5555	Antiques	Drop-off/collection	Accepts most antiques. Call for info.
Gothic City Collector's Cove	Buffalo	874-4479	Antiques	Drop-off/collection	Accepts most antiques. Call for info.
Horsefeathers Architectural	Buffalo	882-1581	Antiques	Drop-off/collection	Accepts most antiques. Call for info.
Kelly Schultz Antiques	Clarence	759-2260	Antiques	Drop-off/collection	Accepts antiques. Call for info.
Pallet Pallet Inc.	Buffalo	800-540-7727	Call for info.	Drop-off	Call for information.
R&R Salvage	Buffalo	853-1735	Call for info.	Drop-off/collection	Call for information.
Sav-Mor Store	Buffalo	893-0721	Call for info.	Call for info.	Call for information.

WOOD



Company Name	Address	Phone	Material Accepted	Type of Service	Other Information
Max Brock Co.	18 Metcalfe St., Buffalo	852-6662	Call for info.	Drop-off/ collection	Also recycles OCC, plastic & white goods.
Buffalo Fuel Corp.	4870 Packard Rd., Niagara Falls	278-0824	Clean wood, pallets	collection	Call for info., covers all WNY.
CanFibre, Inc.	15 N. Steelawanna Ave., Lack.	827-3008	Clean wood, pallets	Drop-off/ collection	Call for more info.
CID Refuse	10860 Olean Rd., Chaffee	496-5000	Wood	Drop-off/ collection	Also recycles roofing material, asphalt, concrete, and mixed material.
Concord Engineering	74 W. Main St., Springville	592-4170	Wood	Drop-off/ collection	Clean wood waste.
Edwards Lumber & Pallet Co.	1524 Bailey Ave., Buffalo	892-1955	Wood	Mostly collection	Container service.
Lumberjack Pallets	108 Sommer, N. Tona.	694-7211	Wood, pallets	N/A	Pallets only.
Pallet Exchange	534 Hopkins St., Buffalo	823-2400	Wood	Drop-off/ collection	Call regarding acceptable materials.
Pallet Pallet Inc.	136 Dingens St., Buffalo	800-540-7727	Wood	Drop-off	Also have salvage and reuse operation
Pallet Services	310 G. Island Blvd., Tona.	873-7700	48" X 40" - 4 Way Wood Pallets	Drop-off/ collection	Call for more info.
TG Enterprises	1526 Eden-Evens Center Rd., Angola	549-3300	Clean wood, lawn/ leaf trimmings	Drop-off/ collection	Call for more info.
Triple S Construction	180 Genesee, Corfu	599-3400	Natural wood products (i.e. stumps, tree limbs, etc.)	Drop-off/ collection	Collection service starts at \$350 a truck load.

Pressure Treated Wood — Whether you're putting in a back deck, banging together a picnic table or staking up a picket fence, chances are it's pressure-treated wood you'll reach for when it's time to pull planks at the lumber yard. The same qualities that make treated wood the timber of choice, earn it low marks from environmentalists. Pressure-treated wood holds up outdoors because it's soaked in chemical preservatives that are strong enough to require a warning label. Indeed, you'll find such a label on the treated planks you carry home, thanks to an EPA requirement. Foremost among the hazards of the most commonly found pressure-treated woods are its three primary ingredients: copper, arsenic and chromium. (Hence, the wood's official classification: chromated copper arsenate [CCA]). Copper and chromium can poison plants and aquatic life; when ingested, even the smallest amount of arsenic can kill a human. Recent studies have shown that these hazardous chemicals can leach out from treated wood. One study turned up traces of arsenic, copper and chromium in the soil beneath built decks. The amount of arsenic in the ground directly below the decks was 20 times more concentrated than in samples of surrounding soil. **Do not burn this wood**, as the smoke released from these fires can be toxic. See: www.enn.com/features/1999/06/062499/build_3933.asp for more information about pressure treated wood.

HINTS: Try erecting a deck, or shingling your house with untreated wood and then paint and seal it. If time is an issue, there's ACQ Preserve lumber to choose from. Also a pressure-treated wood, ACQ lumber is treated with a "greener" blend of ammonia, copper and quaternary ammonia. These ingredients won't earn ACQ lumber non-toxic status, but they do replace the more seriously toxic arsenic and chromium products that taint other outdoor woods. You can order ACQ wood from your lumber yard if it's not already in stock, or you can contact ACQ's manufacturer, Chemical Specialties, Inc., for a listing of suppliers nearest you. Call (800) 421-8661. **What then do you do with scraps of treated wood?** Reuse what you have on another project. Use the wood scraps to make planter boxes (line them with plastic). You can also haul it to your local hazardous waste facility. See mixed material recycling.



Vinyl decking is becoming the decking of choice for many home owners. With growing health concerns about chemically treated wood and the maintenance and replacement cost of rot resistant wood, vinyl and composite materials compare favorably with those traditional wood materials.



DID YOU KNOW?

There are alternatives to pressure treated siding as well. Many homeowners like the look of cedar shingles, but not the hazard of treated lumber. Many companies have created vinyl siding that looks like shingle siding and standard clap-board, and it's very comparable in cost. Ask your contractor, or a local siding retailer for more information.

How does it work?



The University of Buffalo has been an active participant in the Erie County C&D Debris Recycling Program. The Hadley Road project involved the construction of new apartment-style housing for students on UB's North campus. This large project included the construction of 13 - three-story buildings, which included a variety of materials, though mostly masonry and wood. Below are a few examples of the achievements that were reached on recycling and debris disposal:

- ♦ Asphalt millings purchased from the Town of Amherst were placed as subbase under new roads and parking lots.
- ♦ Recycled concrete was used in some of the utility trenches as new crushed stone for backfill.
- ♦ Flowable fill containing recycled flyash was utilized as backfill at the new foundation walls.
- ♦ Containers are used on site for recycling cardboard.

For a six-month period, approximately \$3,000 was spent on debris disposal, a remarkably lost cost considering the size and overall cost (\$18 million) of the project.



Why Salvage and Reuse?

Removing and reselling material is a good option for demolition projects. Staff and additional laborers remove valuable materials from the building. You should be careful to ensure the materials are not damaged as they are removed and stored on-site. Transport materials to reuse centers or schedule reuse centers to pick-up materials as soon as items are removed to minimize damage. In addition, properly number more intricate pieces, such as tile floors, ceilings, and trim work so they can be put back together later. This adds value to the material.

In many cases, salvaging should be done by a third-party operator prior to demolition. This limits the liability requirements on the demolition

Reuse of materials in building renovation is appealing because some of the decorative facets of the old building can be incorporated into the new one. This often applies to commercial buildings where decorative or historically significant structures are removed or renovated to make way for larger, more modern facilities.

Source: Illinois C&D Recycling Guidebook, 1997

Tips for Choosing Salvage Materials and Recyclables

Wood: Clean timbers from wood frame buildings and wood shingles are the best recycling candidates. However, finished wood and structural timbers are the most sought after materials by salvagers.

Brick: Bricks can be cleaned and salvaged. Broken bricks can be crushed for use as aggregate and fill material.

Glass: Plate glass and glass from light bulbs are difficult to market. These types of glass cannot be processed with glass jars and bottles. However, windows and mirrors can usually be salvaged.

Fixtures: Sinks, bathtubs, tiles, bath fixtures, and other fixtures can be salvaged and resold or warehoused.

Metals: Aluminum, copper, and brass all have a higher market value than steel metal.

Case Study:

The City of Buffalo Housing Demolition Project

The City of Buffalo has been an active participant in the Erie County C&D Debris Recycling Program. With an aggressive schedule of demolishing 5,000 blighted homes in five years, the City, in cooperation with its demolition contractors, agreed



to recycle all clean material where economically feasible. Materials recycled included brick/concrete/asphalt, metals, wood, glass, and plastic. In just a one year period, from 2000 to 2001,

there were 15,260 tons of C&D debris recycled from these demolitions, saving Buffalo approximately \$200,000.00 in expensive landfill tipping fees!



WAY TO GO BUFFALO!



Attention contractors, municipal officials, and "do it yourselfers!!!"

If you would like assistance in investigating C&D debris recycling and developing a waste plan for your next project, contact Erie County DEP-Environmental Compliance Services at 858-6370.

Reuse Before Recycle: What is the MAT-EX?

The Western New York Materials Exchange program (MAT-EX), facilitates the exchange of almost any unwanted or unusable products that would otherwise be destined for a landfill. This program involves over 20,000 businesses, schools, nonprofit organizations, and governmental agencies. The MAT-EX has been successful to date, saving landfill space (total volume of material exchanged has exceeded 79 tons already) and reducing disposal costs (estimated at over \$23,000).

Boxes
Plywood
Electronic Equip.
Tools
Computers
Much more...



Glass
Bulk Bags
Storage tanks
Pallets
Office Equip.
Much more...

The MAT-EX encompasses the fourteen county region of Genesee, Livingston, Orleans, Wyoming, Erie, Alleghany, Stueben, Chautauqua, Ontario, Monroe, Seneca, Niagara and the Western Finger Lakes Region. For more information, call the GLOW Region Solid Waste Management Committee at (800) 836-1154.



To access the MAT-EX on the internet, simply type the address:
www.mat.ex.org

NEED MORE INFORMATION?



"WILLY WASTE-LITTLE"

NOTES

Regarding Waste Disposal Regulations:

NYSDEC Region #9
270 Michigan Avenue
Buffalo, NY 14203
(716) 851-7220

Regarding the Erie County Solid Waste & Recycling Programs:

Erie County

Dept. of Environment & Planning
Environmental Compliance Services
Office of Solid Waste
95 Franklin Street
Buffalo, NY 14202
(716) 858-6370

Information Sources

Listed below are the sources that have been vital to the creation of this guidebook, and can be consulted for more information regarding waste reduction, recycling and C&D debris recycling.

1. Illinois Department of Commerce and Community Affairs, 1997. *Construction and Demolition Site Recycling Guidebook.*
2. New York State Department of Environmental Conservation, 1997. *The New York State Recycling Bulletin 1997 Edition.*
3. New York State Department of Environmental Conservation, 1997. *6 NYCRR Part 360 Solid Waste Management Facilities.*
4. United States Environmental Protection Agency, 1998. *Characterization of Building-Related Construction and Demolition in the United States*, report # EPA530-R-98-010.
5. Yost, P. and Lund, E., 1997. *Residential Construction Waste Management- A Builder's Field Guide*, National Association of Home Builders Research Center.
6. www.epa.gov/epaoswer/non-hw/muncpl/facts.htm— for year 2000 estimates.
7. www.epa.gov/epr/products/vehicles.html
8. www.rbr.org
9. www.autocool-refrigerants.com/product.htm#tech%20page
10. www.frglos.fsnet.co.uk/Index2.html
11. Construction images from: www.epa.state.il.us/small-business/construction-debris/
12. www.sunderland.ac.uk/~es01hu/cardbd.htm
13. www.plasticbag.com/environmental/recycleThree.html
14. www.mcdef.org/styro.htm
15. www.epa.gov/OSWRCRA/non-hw/tires/scrapti.pdf